Find Functions: KOG

KOG Browser

From the **Find Functions** top-level menu, the **KOG** option on the second-level menu leads to the KOG Browser, as shown in Figure 1(i). This is a two-level display with KOG function groups shown on the first level, and KOG categories listed under the corresponding function groups.

Top-level KOG function groups include:

- CELLULAR PROCESSES AND SIGNALING
- INFORMATION STORAGE AND PROCESSING
- METABOLISM
- POORLY CATEGORIZED

Clicking on any of the function groups will lead to a page showing all KOG IDs associated with this group and the corresponding isolate genome count (Figure 1(ii)). Clicking on any of the categories will lead to a page showing all KOG IDs associated with this category and the corresponding isolate genome count (Figure 1(iii)).

Figure 1. KOG Browser.

Users can select any subset of listed KOG IDs to be saved to Function Cart or Workspace Function Set for further analysis.

Each KOG ID is linked to its NCBI definition page such as:
https://www.ncbi.nlm.nih.gov/Structure/cdd/cddsrv.cgi?uid=KOG0624

Users can also click on a genome count to view all isolate genomes having genes associated with a particular KOG ID. For example, Figure 2(ii) lists all isolate genomes having genes annotated with KOG0624.

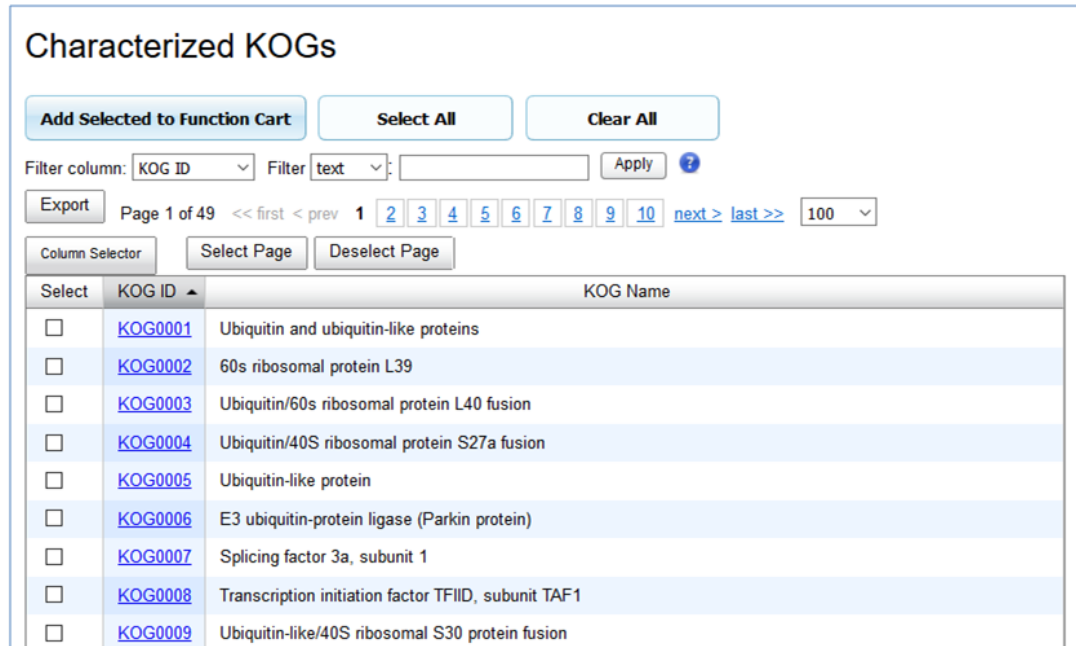Clicking on a gene count will lead to a page listing the actual genes.

Figure 2. KOG0624 Detail and Associated Genomes.

KOG List

The **KOG List** option shows all KOG IDs in a table display (Figure 3).

Users can select a subset of KOG IDs to be added to Function Cart or Workspace for further analysis.

Clicking on a KOG ID will lead to NCBI KOG detail page as shown in Figure 2(ii).

Figure 3. KOG List.

KOG List w/ Stats

This option is similar to KOG List except that there are additional genome counts.